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CLINICAL APPLICATION OF MEASUREMENT OF SERUM DIGOXIN BY RADIOIMMUNOASSAY. S.Iida M.Fukumoto, Y.Kawamura, J.Yamazaki, S.Shinichiro, T.Shindo and T.Morishita. 1st Internal Medicine, Toho University School of Medicine. Tokyo.

Serum digoxin was measured by RIA method using Phadebas Digoxin Kit to evaluate its clinical application. The measurement of the known doses revealed that recovery rate of digoxin was 98.8% and dilution rate was significantly linear. Furthermore, on the double determination of digoxin, r coefficient indicated 0.986 (p 0.001).

Five patients of cardiac valve disease, 20 patients of chronic renal failure and, as a control, 5 healthy volunteers were examined. In the group of cardiac valve disease, serum concentration of digoxin was proportionate to the findings on ECG and UCG. The chronic renal failure group received digoxin demonstrated the inverse correlation between serum digoxin and creatinine clearance ( $r=0.933$ ,  $P 0.001$ ). On hemodialysis digoxin was not dialysed into dialysate and no significant correlation was noted between serum digoxin and serum albumin, serum K.

It was clear from the above results that this Kit was beneficial for the clinical examination of cardiac patients.

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CONFIRMATION TEST USING SOLID-PHASE RADIOIMMUNOASSAY METHOD FOR HBs-ANTIGEN. T. Kohno. Dept. of Radiology, Hannan Central Hospital, Osaka.

Confirmation test for HBsAg was performed by two methods; INHIBITION TEST "H" and CONFIRMATORY TEST "A" by ABBOTT. Former is a method developed at our laboratory. The procedure of "H" is as follows; 1) Dispense 50ul of samples to a pair of reaction tray wells. 2) Add 200ul of Anti-HBs (human) to the one, add normal saline to the other. 3) Incubate at 45°C 1hour. 4) Add beads coated with HBsAb (guinea pig) to each wells. 5) Following procedure is the same as AUSRIA II --- If Inhibition Ratio is 0.5 or less, the sample is confirmed positive for HBsAg.

Results; 1) All of the tested samples (A:33, H:121, including those from healthy carriers, and those which are positive for both HBsAg and HBsAb) are confirmed positive. 2) No false positive cases were found even among the weakly reactive samples by RIA method. 3) The procedure of "H" is simple and it requires small amount of sample, while in the case of a strongly reactive sample, dilution may be necessary. 4) The confirmation tests require continuous supply of stable and high-titer HBsAb which contains every subtype in it. 5) HBsAg false positive case derived from technical failures can be also detected by these confirmation tests.

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THE CHANGE OF THE AFP VALUE AT DEEP FREEZING SERUM. Tosiko Sakai, Yoichi Yamamoto, Radiology(2). Kanagawa Adult disease Center.

Generally considered, deep freezing serum contains does not change in one to two months but we are observed remarkably changed AFP value in RIA methods. This observations as following, the same patients serum was separate three or four tubes and these tube are stored deep freezer (-20°C). Each tube AFP was measured by AFP RIA kits (Dinabott) and melting serum is not use reexamination. The serum AFP are measured two or three time at intervals of time.

Results: We are measured 118 cases, in this case AFP value decreased 39 cases, 56 cases is not change and other 23 cases are complicated changes.

Half value time of decreased case as follow: less 7 days are 7 case, 8-14 days are 11 case, 15-21 days are 7 case, 22-40 days are 6 case, more 41 days are 8 case.

These decreased case AFP value must be any correction by stored on times.

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CLINICAL STUDIES OF SERUM CHOLYLGLYCINE (CG) AND SULFOLITHOCHOLYLGLYCINE (SLCG) IN VARIOUS LIVER DISEASES. T.Mitani, Y.Yumoto\*, T.Ito and H.Nagashima. The First Department of Internal Medicine, Okayama University School of Medicine and \*National Shikoku Cancer Center. Okayama and \*Matsuyama.

Recently radioimmunoassay kit for serum bile acid was developed (CG RIA, SLCG RIA Abbott Laboratories). We studied the clinical meaning of CG and SLCG in various liver diseases. (1) Serum CG and SLCG levels were very high especially in acute hepatitis, fulminant hepatitis, intra- and extrahepatic obstruction. They decreased parallel with serum bilirubin, GOT and GPT in acute hepatitis, but they did not show such good correlation in chronic hepatitis and liver cirrhosis. (2) Serum CG and SLCG levels were correlated well with s-bilirubin and LAP ( $P < 0.001$ ). (3) Intrinsic bile acid tolerance test was demonstrated to be a sensitive test to detect latent liver diseases. (4) PTP (percutaneous transhepatic portal) catheterization was performed on 11 patients, and blood samples were collected from portal vein (PV), superior mesenteric vein (SMV), splenic vein (SPV) and peripheral vein (Peri). CG level was markedly increased in SMV and it was decreased in the order PV, SPV and Peri. But SLCG levels showed no significant differences in PV, SMV, SPV and Peri. CG uptake rate to liver (calculated from PV CG level and Peri CG level) was correlated well with portal vein pressure ( $p < 0.05$ ). CG levels in SPV and Peri were correlated well with s-bilirubin, but CG levels in PV and SMV had no significant correlation with portal vein pressure, s-bilirubin, GOT, GPT and Al-Pase.